



On Trainee Interpreters' English Listening Comprehension Barriers: The Case of Local University Undergraduate Translation Majors in China

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ABSTRACT

Listening is the first step of interpretation, and it determines whether an interpreter can successfully grasp information received in the source utterance and fulfill the interpreting task. Being an important part of interpreting process, it is also the bottleneck of many trainee interpreters. For the majority of Chinese students majoring in English or translation, it is a problem needing to be addressed urgently. The present study aims at finding the trainees' barriers for listening comprehension in English to Chinese interpretation. A questionnaire study was conducted on 164 trainee interpreters. The results and the following informal interviews indicate that some factors exert negative effects on the trainees' listening and information receiving, including linguistic barriers and non-linguistic ones. The linguistic barriers revealed from the data are perception of sounds, lexical segmentation, sentence structure recognition etc. The Non-linguistic barriers include lack of background knowledge, logic organization of the information, speaker's accent, unfamiliar vocabularies, unbalanced effort coordination and psychological stress, etc. Based on the theoretical and pedagogic analysis of students' problems, some teaching and training strategies are suggested to cope with the problems.

Introduction

In its short professional history, interpreting has already established its important status in the international communication of the contemporary world. People need interpreters' talents and professional skills to overcome language barriers and build up a bridge in intercultural communication. However, it is difficult for the interpreters to gain the necessary skills. They need to work hard to learn how to make preparations beforehand, how to coordinate between the short-term memory storage of information and note-reading, and how to switch between the source and target languages quickly, etc.

In interpreting situations, interpreters work between the speakers and the audience under both situational and psychological pressures because the speakers and the audience are in the same place at the same time. They have only one opportunity to listen to the source language input and provide target language output during the very limited time span, and they need to switch between the two languages with the same information efficiently and accurately. These characteristics of interpretation demand high level overall language efficiency from the interpreters, especially their foreign language listening and speaking skills.

Based on my years of experiences as interpreter and interpreter teaching and training, I find the listening comprehension skills of many learner interpreters are not as good as expected either based on their self-evaluation or judged by their listening comprehension scores in various kinds of English proficiency examinations. The trainee interpreters and their teachers are both eager to find better ways to improve their listening comprehension abilities. In everyday listening, listeners just need to pay attention to the general ideas or the key

content for smooth communication, whereas listening for interpreting is much more precise and professional, and requires quite different skills. Quite a number of my students say that although their listening comprehension examination score is above 80 (100 in total), they are still not confident for information receiving in interpreting.

Interpreting is time-efficient interactive process, cognitively very complicated with many steps such as receiving, decoding, memorizing coding and reconstructing the target language with the information. Usually there are three stages in the interpreting process: input and comprehension, memory and note-taking, and reorganizing and expression. The first stage is the most fundamental since listening comprehension for interpreting is much more demanding for its aims and requirements.

Previous Studies of Listening Comprehension

According to Anderson (1983, 1985), listening comprehension goes through three interrelated and recursive processes: perceptual processing, parsing and utilization. At the first stage, learners' attention is focused on the oral text and the sounds heard stay in echoic memory for initial analysis. Only a small part of a given text can be changed into meaning representation units due to the special working features of the echoic memory. The listeners construct meaningful mental representation from comparing the sounds they have heard with the storage of words and messages in their minds based on the rules of segmentation in parsing. Then they try to convert complex propositions into simple ones in their own words, but keeping the original meaning. At the utilization stage, listeners activate what they already know to enhance their comprehension, and connect the new information with the existing knowledge in their minds for later retrieval. Learners rely on two kinds of existing knowledge to understand the coming text: what they know about the real world and their linguistic knowledge. In top-down processing, listeners use the real world and background knowledge of a certain topic to predict and analyze the content. When they use linguistic, grammatical and syntactical knowledge to help with their comprehension, they are using bottom-up processing.

Differences between Listening for Interpreting and General Listening Comprehension in English Learning

The focus of listening for interpreting is on thinking and analyzing the information in the source language instead of sound signals and words and phrases. Analyzing process helps interpreters to understand the information thoroughly so that they just remember the information and nearly forget the words and phrases used by the speakers. Undoubtedly successful interpreting is decided by high quality information receiving. Good command of listening comprehension in a foreign language is the foundation for effective information receiving in interpreting. Inadequacy in listening usually results in interpretation failure.

- a. Teachers and students can choose foreign language listening materials according to the teaching purposes and requirements as well the speech rate, difficulty level of the language and the topic in the listening passages. The interpreters have no other choices, but to listen and analyze the information passed to them by the speakers, who can add some new content at any time.
- b. General foreign language listening training mostly focuses on the language points: pronunciation, intonation, words and phrases used etc, whereas interpreters have to pick up the information contained and the speakers' intention rather than concrete words and phrases used. After listening to a dialogue, the general listeners can answer the questions if they catch some key words, but interpreters must construct a complete semantic discourse with correct logical organization in information, not just a cluster of words and phrases. So the interpreters often listen with weighty responsibilities and high pressure at the speech.

- c. The listening materials for general English learners (including materials for IELTS or TOFEL) are usually in General American Pronunciation or Received Pronunciation with nearly no noise interferences. However, the environment for the interpreters are often the work sites or a lecture hall with the interpreter, speaker and the audience together. They have to face many uncertainties which may lead to information loss: strong accents of the speakers, strange words and phrases, the in-situation noises, or the interpreters' possible inadequate preparation extra-linguistically. Furthermore the only purpose of the speakers is to communicate, they don't take the interpreters' situation or difficulties into consideration.
- d. Cognitively, general foreign language listeners rely on their listening system, and their comprehension is comparatively passive, just following the requirements in the examination questions. In interpreting situation, the interpreters have to mobilize their listening system, analyzing and memorizing mechanism in their minds. They listen, analyze and memorize simultaneously in order to pass the information and intention of the speakers to the audience. Therefore the interpreters should be much more competent in analyzing and summarizing information than the ordinary foreign language listeners.

The Effort Model of Daniel Gile

In his book entitled *Basic Concepts and Models for Interpreter and Translator Training*, Gile, the famous French professor in the field of interpretation, put forward The Effort Model, SI (simultaneous interpretation) = L (listening and analysis) +M (working memory) +P (target language production) + C(coordination among those three efforts). According to him, in consecutive interpretation, there are two phases in the Effort Model. In phase one CI=L (listening and analysis) +N(note-taking) +M (short-term memory) +C(Coordination), and Phase two =note-reading +production +coordination. The information processing capacity of human brain is limited. In interpreting, if the total processing capacity requirements(TR) is larger than the total available processing capacity (TA), the quality of target language production will be poor. Therefore, in simultaneous interpretation, $TR=LR+MR+PR+CR$, that is total processing requirements = listening and analysis processing requirements + memory processing capacity requirements + Production processing requirements + Coordination + processing capacity requirements. Successful consecutive interpretation also requires $TA \geq TR$, and $LR \geq LA$.

However, at present, most of my students are still at the stage of $LR \leq LA$, which often leads to interpretation failure. There are many causes: lack of vocabulary, and inadequate grammar knowledge in foreign language, lack of extra-linguistic knowledge and low degree of automaticity in linguistic processing etc.

Students' Listening Barriers in Interpretation

Taiyuan Normal University is a second-tier local university (2A according to the Chinese grading system of the universities and colleges), mainly training teachers for the secondary or primary schools in Shanxi province and the neighboring areas. Its foreign language Department has a history of over 50 years. In 2012, the Education Ministry Approved our application for holding bachelor's program for translation. In 2013, we had our first batch of translation majors. Until now, there are altogether three batches of graduates of translation majors. For the curriculum design, we adopted the Chinese national standardized one, that is the courses for the first two years concentrate mainly on improving the students' linguistic proficiency level both in English and Chinese, and the priority is on English, since Chinese is our students' first language. For the third and fourth years, the students have translation, interpretation and the related academic courses. Consecutive Interpretation Course is in the sixth semester and Topic-based Interpretation course is scheduled in the seventh. After five semesters of linguistic and encyclopedic knowledge learning, students should have achieved the required level of proficiency for interpreting courses. Prior to Consecutive Interpretation Course, they have attended the Introduction to Interpretation. However, the actual situation is very disappointing, the percentage of the students who are not confident with their listening and information receiving is quite high (nearly 60%). I usually have to play the recording of a passage in English several times before the students are able to grasp the main idea and important

details. Nearly a half of the class time is spent on helping them to understand the passages for interpreting. (Ji. 2020) The urgent situation prompted me to

- a. investigate the barriers students have in listening,
- b. study the causes for these barriers,
- c. work out some possible coping strategies to solve the problems.

Based on my observation and communication with my students during breaks in English-to-Chinese interpretation practice in my class, and the findings from other researchers (Guo, 2008; Guo 2013, etc), I prepared a questionnaire with 14 statements for my students.

The research subjects in this study are the senior students majoring in translation in Foreign Language Department of Taiyuan Normal University. There are altogether 164 students, and a half of them passed TEM 4 examination (a national English proficiency exam designed for English or translation majors at the end of the 4th semester). Before the end of the class, I spared 15 minutes to distribute the questionnaire and asked them to answer it. To ensure accuracy and impartiality, the students did not have to put their names on the questionnaire. Since two students asked for leave on that day, 162 effective questionnaires were collected. I also interviewed some students shortly after, asking them to explain their questionnaire choices in details, or if possible providing some examples.

The result of students' answers to the questionnaire

Statement number	Very often	often	sometimes	seldom
Statement 1	40	56	36	30
Statement 2	54	51	40	17
Statement 3	51	48	28	35
Statement 4	55	49	32	26
Statement 5	59	53	35	15
Statement 6	38	32	55	37
Statement 7	68	52	24	18
Statement 8	45	42	55	20
Statement 9	80	70	22	0
Statement 10	60	48	32	22
Statement 11	70	51	21	20
Statement 12	30	18	78	36
Statement 13	55	51	36	20
Statement 14	40	58	40	24

From the above table, we know that for 12 out of 14 statements, over 50% of my students chose “very often” or “often”. For No.9, No.7, No.11, No.5 the numbers reached 150, 120, 121 and 112 respectively. The result shows that many students have both linguistic and non-linguistic barriers at the information receiving phase.

Some of the statements concern linguistic barriers only, but some are related to linguistic as well as non- linguistic aspects of students' knowledge.

Linguistic barriers

Statements 1,2 ,3,4,5,6,7, 8 and 13 are linguistic barriers

96 students often have problems as mentioned in S1. *It is difficult for me to get the meaning of some words when listening to the recording even when I am very familiar with them in reading.* This reflects that the corresponding words maybe still passive for the students, they can only recognize them in the written form and cannot use them freely in language output. Their problem may possibly lie in phonetics with weak forms, assimilation or other variables of sounds.

105 students often have problems in S2. *I'm likely to get lost while listening to the material.* After the students handed in the questionnaire, some of them told me that when the topic of the recording was totally new for them, they got lost easily. They named two recordings from their textbook, and both of them were argumentative passages. When the speaker was fast and pronunciation was not clear (standard), they also got lost while listening.

99 students frequently hindered by the factor mentioned in S3 *I cannot tell the differences between the argumentative ideas and supporting details in the listening material.* This problem may be transferred from Chinese and the students' logic thinking in other fields. It may also be caused by linguistic knowledge: problem in understanding sounds in connected speech or strange words and phrases.

The problems mentioned in S4 *I feel difficult to recognize some words even if I know them in the reading materials.*, S5. *I could not divide the complete utterance into identifiable units.* And S13 *I cannot recognize the same passage when it is recorded by a speaker with strong accent.* overlap S1, but mainly caused by suprasegmental features in phonology.

Students have less problem with the situation in S6. *I misunderstand words with similar pronunciation in the listening material.* They told me that they usually guessed the meaning from the context.

One of the most serious problems is mentioned in S7 *I am often stuck for the meaning of some strange words in the recording , such as some technical terms and phrases, slangs, idioms in particular.* Most of my students are afraid of new words in the source recording/speech. They fail to concentrate on listening due to just one or two unfamiliar words. They keep the sounds of the new words in their echoic memory trying to work out the meaning, neglecting the following stream of sound signals, especially when the strange words are key words. The newly-received information cannot be matched with the existing knowledge in their minds. In this way, both the bottom-up and top-down processing break down. Besides, new words and phrases often associate with a new area of knowledge for the students, the double "newnesses" will increase the cognitive workload of comprehension. Consequently, students' attention will be distracted due to over-consumption of energy for information processing.

S8 is also a barrier both linguistically and non-linguistically. *Although I know most of the content in the material, I still can't understand the general ideas of the passage.* Some students may have this problem in Chinese and reading in English when they have automatic-processing ability in their first language or they can repeatedly read a written passage in English. The lack of summarizing and organizing ability is transferred to their information-receiving phase in interpretation. To overcome this barrier, we need to improve the students' overall competence.

The problem in S13 (*I cannot recognize the same passage when it is recorded by a speaker with strong accent.*) is special with different varieties of English since English is internationally used for communication. Except the native English speakers, people from other countries also speak English for the convenience of communication.

Therefore, students need special training for understanding different varieties of English. I categorize this barrier as linguistic one as there are some linguistic connections between standard English and its varieties in pronunciation, vocabulary and sentence structure etc.

Non-linguistic barriers

Statements 9,10,11, 12,14 are non-linguistic barriers. Many researchers (Gile, Zhong, Ren, Liu, etc.) summarized non-linguistic influencing factors in the course of interpreting into three categories: encyclopedic, professional and situational knowledge. The rapid analyzing ability and effective memory needed by the interpreters depends on their comprehensive utilization of different kinds of knowledge, although adequate command of both source and target language is the prerequisite for information processing.

S9, *When I try to work out the meaning of the current sentence, the next sentence in the recording has slipped away already*, is the most serious problem for my students. 150 students out of 162 reported that they often face this barrier, and the percentage reached nearly 93%. This reflects that the trainee interpreters cannot allocate their attention properly, neither can their memory work effectively, nor has their English language processing reached automaticity. Some of my students said that after listening to one Sentence in English, they often tried to work out its meaning in Chinese to ensure the correct understanding. Sometimes they lingered on one or two words for too long. Some students lack the necessary predicting ability, and they even miss the information in the following sentence which is self-evident according to logic reasoning.

Based on the Effort Model put forward by Gile, for these students, Total processing requirements(TR) > the total available processing capacity (TA). The underlying reasons for the breaking of effort coordination might be the students' inadequate command of English. Understanding one sentence will consume them a lot of energy with not enough left for catching the next one. In English-to-Chinese interpretation in my class, with no near-native proficiency in English listening, any new words, phrases or sentence structure will distract their attention and force them to allocate more attention to identify these sentences. In Chinese-to-English interpretation, it is relatively easy for the interpreters to understand and memorize the information. But they have difficulty at the Phase II Expression. The corresponding English words, phrases and sentence structure stored in the active zone of the memory can be rapidly extracted, but those in the passive zone consumes twice as much energy to be activated, and sometimes even activation failures occur.

The barrier in S10, *I can understand the general idea of the listening material, but I cannot do the retelling or interpreting work.*, is also a common difficulty for my students. They often linger on the literary meaning of the speech, failing to grab the general idea, the implied meaning and the organization of ideas. When completing the retelling task, it is very likely for their minds to go blank. One of my students complained that she could not do the retelling very well. I listened to her recording and read her notes carefully. In her notes, I picked up most of the key words and phrases in the source text. However, in her retelling, she could only make use of a half of the key words and phrases. She said because she missed several sentences in listening, she did not know where to use them, nor did she know how some of them were related. Although she knew the general idea, the key words in the general idea did not form a semantic map with the other words and phrases. She did not grasp the hierarchical structure of the message. In her case, S9, S10 and S11 were related.

S11 (*When I try to understand the current sentence, the previous ones of the speaker/ in the recording) have already run out of my memory.*) is closely related with S9 (*When I try to work out the meaning of the current sentence, the next sentence in the recording has slipped away already.*) If the students have problems with S9, they are sure to have problems with S11. Due to language inadequacy, problems occur in understanding the meaning which consequently leads to memory failure. Most of their attention is wasted on the initial stage of

language decoding, for them there is no such a stage called “deverbalization”. It is impossible for them to remember the meaning when it is not extracted from the message. Due to the limited capacity in short memory, it often clears the out-dated information for newly coming. If the trainee interpreter cannot process the newly received information timely, that will be replaced soon. My students made fun of themselves by saying “I can remember every word clearly in the last sentence.”

I asked my students to practice listening in English for at least one hour a day, including intensive listening (doing dictation) and extensive listening. After about two weeks, some of my students came to me and complained that they had no improvement. S12 (*Although I spend a lot of time and pay much attention to listening comprehension practice, it seems that no progress has been made.*) is a summary of their complaints. Some of them were too eager and ambitious, and they chose recordings with much higher difficulty level than their actual proficiency level in English. I had to explain Crashen's “i+1” Input Hypothesis to them, telling them they had to do it step by step. Over-difficult materials would discourage them and force them to lose confidence. Others need to be encouraged and guided in learning habits.

It seems to be strange that 98 of my students (60%) reported that they were often hampered by S14 (*I am often easily disturbed by the surroundings.*). The poor concentration may be caused by nervousness, inadequate command of English, effort coordination failure or other personal factors. (insomnia the previous night, or other personal reasons) Two of my students said if they took notes while listening to the recording, they could be more attentive; and the background noise in the recording might distract their attention. One student said the speaker's facial expressions or gestures sometimes might be misleading.

If we summarize all the non-linguistic barriers, we can find that they are closely related to effort coordination and working memory, which is decided by the interpreters' language proficiency level, cognitive knowledge (world knowledge, topic knowledge, speaker knowledge, knowledge of the situation, knowledge of the setting etc) needed for cognitive processing, the amount of shared knowledge between the speaker and interpreter, the interpreters' memory capacity and psychological traits etc.

Combined effects of linguistic and non-linguistic barriers

The questionnaire handed in by the students reflects that those seriously hampered by linguistic barriers are mostly the ones with strong non-linguistic problems. The active function of extra-linguistic barriers results from the inadequacy of foreign language proficiency, which is in line with Gile's Effort Model. Students with comparatively better command of English also reported the non-linguistic barriers in their answers, but to a lesser degree, and mostly under special circumstances (e.g. Insomnia, minor ailments, or perhaps personal disturbances etc.) Among the non-linguistic factors, knowledge needed for cognitive processing plays a leading role, since my students often said “I have never heard of the topic.” Or “at the beginning of the recording, when I hear the topic, if I know something about it, I am confident. If it is totally new for me, I get frightened, then I force myself to concentrate more and take more notes, but often to the contrary.”

Possible Coping Strategies

Linguistic Strategies

Comprehension in interpretation is a complex process that goes beyond the mere recognition of words and phrases. It involves many different factors such as language elements, social and cultural factors, world knowledge and cognitive sciences etc. The interpreters understand a speech with the help of language as well as knowledge encoded in the language forms, therefore comprehension of spoken speech starts with language perception. However, language perception is no easy task cognitively since there is no one-to-one correspondence between

the characteristics of the speech sounds we hear, sounds in connected speech is very different from their standard forms caused by suprasegmental elements, such as liaison, loss of explosion, assimilation, weak forms, stress and intonation etc. A completely different meaning can be produced by the speaker if he changes the stressed words, intonation or rate of speech.

There are three levels in speech perception: the auditory level, the phonetic level and the phonological level (Carroll, 2000:76). The listener hears the speech signals in forms of frequency, intensity, temporal attributes and other auditory stimulus at the auditory level. Then at the phonetic and phonological levels, phonetic segments are converted into phonemes, and listeners usually apply phonological rules. What makes it difficult for the listener is that they often hear a stream of sounds in spoken language, with no intervals between two words and the ending sound of the first word may run into the starting sound of the second. The situation will be even worse when the speaker is not native, whose pronunciation may be very different from the standard RP or General American.

Teaching phonological rules and giving the students ear-training exercises

According to the curriculum design, my students had the course of phonetics in the 1st semester, they had already learned these rules. However, these rules have not been internalized in their English speaking and listening, although some students can repeat the rules if being asked. Students have problems with assimilation at word boundaries. To them, it is highly complicated and rather unpredictable. In fact, the type that is likely to cause most problems for the foreign language listeners is limited to five word-final consonants (/n, t,d,s,z/), and can be reduced to a few basic rules.

Eg. Consonant change in assimilation

Before these sounds	The sound Y	Becomes sound Z	example
/p, b, m/	/n/ → /t/ → /d/ →	/m/ /p/ /b/	Ten people → tem people Hot bath → hop bath Good play → goob play
/k,g/	/n/ → /t/ → /d/ →	/ŋ/ /k/ /g/	Ten cars → teng cars That gun → thak gun Good cause → goog cause
/j/	/t/ → /d/ →	/tʃ/ /dʒ/	Right you are → rye chew are Did you go? → di due go
/ʃ/	/s/ → /t/ →	/ʃ/ or /-/ /ʃ/ or /-/	This shirt → thi shirt Those shoes → tho shoes

(From Field, J. 2013:p150)

The reduced forms of word pronunciation often hinder students' comprehension of spoken language. The reduction often happens when they are part of a larger group. One or more of their standard phonemes might be

dropped and syllables might be shortened or weakened with a word of low importance within the group. It might be that a frequent and familiar group of words has become stored in the minds of speaker and listener as a single simplified chunk.

Progressively more casual version of the word “actually”

Maximally careful	/æktʃʊəli/
	/æktʃʊəli/
	/æktʃʊli/
	/æktʃəli/
Maximally casual	/æktʃli/
	/æʃli/

(From Field, J. 2008: P153)

To help students internalize the rules and become alert in listening, teachers can give the students corresponding rules, ask them to look for examples in the source speeches and then do ear-training exercises.

Finding matches between the sound signals and the language knowledge

The information provided by the speech signal is sometimes inconsistent and even at worst misleading. How does an interpreter manage to connect speech that is so variable to his knowledge of sounds and words of English? When they listen, they form tentative matches cognitively on the basis of available evidence and later to confirm or change them as they hear more and more of the utterances. The matching process does not rely upon a single source of evidence (eg, just a series of phonemes). Instead, the listener is constantly weighing many different pieces of information against each other in order to establish what has been heard. For example, to understand the spoken word “vegetables”, they might not only match at the phoneme level, but also at the level of syllable, the word “vegetable” stored in their minds, and the clues provided by the context (*fruit and...*). The goal of perception is to find a “best fit” instead of 100% match.

Helping students to spread their activation while listening

The vocabulary command of person draws upon elaborate connections between word meanings and forms. Usually when a listener hears a word that is part of one of the networks, it can activate a number of other related words. When they hear the word “doctor”, the words *patient, hospital, nurse* may become foregrounded so that students will recognize them more easily if and when they occur. Teachers may give students some exercises to promote spreading activation.

Eg. Anticipating words

“You are going to hear a recording about X. What words do you expect to hear?” Students may write down the words or phrases they anticipate. They may compare while listening.

Doing grammar dictation and other exercises for online parsing

To promote information processing, students should be automatic in understanding grammatical structures in English. Repeated dictation practice is very useful, especially for the complex sentences. Other exercises, *pausing to anticipate, completing the sentences, recognizing common groups of words, syntactic inferencing*, can also be used for a change.

Knowledge strategies

To understand a speech in English, interpreters need some outside information---different kinds of knowledge to assist cognitive processing: world knowledge, knowledge of the specific topic, knowledge of the speaker, knowledge of the current situation and observation of the setting.

World knowledge provides the background information that makes a speech meaningful, and operates at many different levels. For example, in BBC broadcasting, there was this sentence spoken “*Should you let your guide dog on to an escalator in the underground?*” Underlying the sentence, there was a presupposition (or awareness) that a dog might be frightened of an escalator. From the lexical chunk “guide dog”, the interpreter will immediately understand that the master must be a blind. The word “underground” referred to the London Metro instead of a spy network. (Field, 2008)

Topic knowledge is a part of the world knowledge, but it can provide a more specific framework for what the listener hears. If the students are going to attend a lecture on Pandas, they are sure to have some expectations, such as panda’s lifespan, habitats, gestation, evolution history etc, and foregrounding likely some related vocabulary.

Speaker knowledge Interpreters should have prior exposure to the speaker’s voice, familiarizing his/her pronunciation, way of delivering his/her ideas. The speaker’s role, background, personal beliefs and attitudes will be useful to interpret his/her messages. Very importantly, that will help the interpreter to relate to the amount of experience that he/she shares with the speaker.

Knowledge of the situation Many speech events have an element of ritual about them and progress through a series of relatively predictable exchanges. Prior knowledge of the situation type and how the same ritual is handled in the culture of the speaker will assist the interpreter’s information receiving. Knowledge of the situation is also important for the interpreter to have a clear idea of the type of information.

Knowledge of the setting will provide visual clues for the contextual framework that contributes to the way an utterance is interpreted, such as the objects and people in the immediate environment of the speaker. Paralinguistic clues (facial expression or gesture) contribute significantly to the interpreter’s understanding of what is being said.

Different sources of information in both the source and target languages can readily transfer to each other. But the ability to make use of contextual clues may be dependent upon understanding of the culture or cultural assumptions with the target language. The lack of cultural knowledge may restrict the extent to which the interpreter can make assumptions based upon external knowledge.

Suggested example of predicting exercise using external knowledge

Before listening

Content schema

You are going to hear a recording about canals

- brainstorming what you know about canals (in L1 or L2).
- how much of this do you expect to hear in the recording?
- What words do you expect to hear which are associated with canals?
- Are canals still used in our country and the speaker’s country?

Background

The speakers are people who manage canals, people who work on canals and people who take holidays on them.

- e. How do you expect the attitudes of the groups differ? Might they disagree?
- f. What differences do you expect between impromptu interviews "in the street" and more formal interviews in studio conditions?

(revised from Field 2008: p219)

Except guiding students to apply their different kinds of knowledge properly, teachers can guide the students to read more different kinds of materials and take part in extracurricular activities to accumulate their knowledge, since in interpreting practice, interpreters frequently invoke relevant sources from his/her knowledge storage.

Helping students to grasp attentive listening skills

The attentive listening skills help the interpreters to focus their attention on information rather than its language form. Using these skills, interpreters can analyze and reason the coming information rapidly and memorize the content for interpreting consciously. Scientific systematic training will enable interpreters to use the rapid analytical skills consciously, so that deverbalization can be realized.

Discourse Analysis, which combines linguistics, semiotics, anthropology, pragmatics and other fields of learning, is a new-born interdisciplinary field of study. Its present trend of development is to combine grammar with context, language and social interaction, and can be applied to translation/interpretation study. For any discourse, the interpreters should ask seven questions:

- How does the sentence within the discourse connect with each other? (Cohesion)
- How does the topic within the discourse develop? (Coherence)
- Why does the speaker set up this discourse? (intentionality)
- What is the response of the readers towards this discourse? (Acceptability)
- What kind of information does this discourse offer? (informativity)
- What kind of discourse is this one similar to? (intertextuality)

Discourse analysis guides students towards deverbalization, grasping the main idea, coherence of the text, intention of the speaker and hierarchical organization of the information, so that the students can gradually learn listening while analyzing and listening while memorizing. The famous Chinese interpreter as well as interpreter trainer, Professor Liu Heping, compared learning to be an interpreter as learning to drive a car. The trainees should internalize every step and achieve automaticity in operating. Professor Liu summarized her intensified training process into the following stages:

- General idea summary to complete retelling
- Information visualization
- Grasping the major clue for the information and clarifying logical relations
- Comprehending the coherence and sequence of information in the utterance
- Grasping specific information and key words
- Differentiating main idea and secondary information

- Analyzing information
- Learning to counter environmental interferences
- Accumulating background information

My questionnaire investigation results show that over a half of the students have problems with recognizing words in listening, so in actual training it is appropriate that we should encourage the trainee interpreters to bring world knowledge to bear upon their listening and information receiving, it is also important to compensate for gaps in word recognition caused by the lack of between words pauses and the modified sounds in connected speech. Students should be trained in both bottom-up processing as well as top-down-processing.

For bottom-up processing, since pauses in natural speech only occur every twelve syllables or so, listeners, unlike readers, do not have indications of where words begin or end. Students need to separate out words within these twelve syllable chunks as consistently as they can. They may have more practice training their ears with understanding suprasegmental features such as reduced forms, assimilation and elision, resyllabification and cliticization etc.

For top-down processing, there are some commonly-used pre-listening activities: word-association, questioning, making a list of possibilities/ideas/suggestion and looking at pictures before listening. "Pre-listening activities usually have two primary goals: a. to bring to consciousness the tools and strategies that good listeners use when listening, and b. to provide the necessary context for that specific listening task. Studies show that learners comprehend more of a text if they are familiar with the text from experience or they have known something about the topic before or they know in advance what the listening passage concerns. The four kinds of pre-listening activities help to activate students' prior knowledge, build up their expectations for the coming information and sometimes even give them a framework of the coming passage" (Ji, 2003).

Improving students' effort coordination at information receiving stage

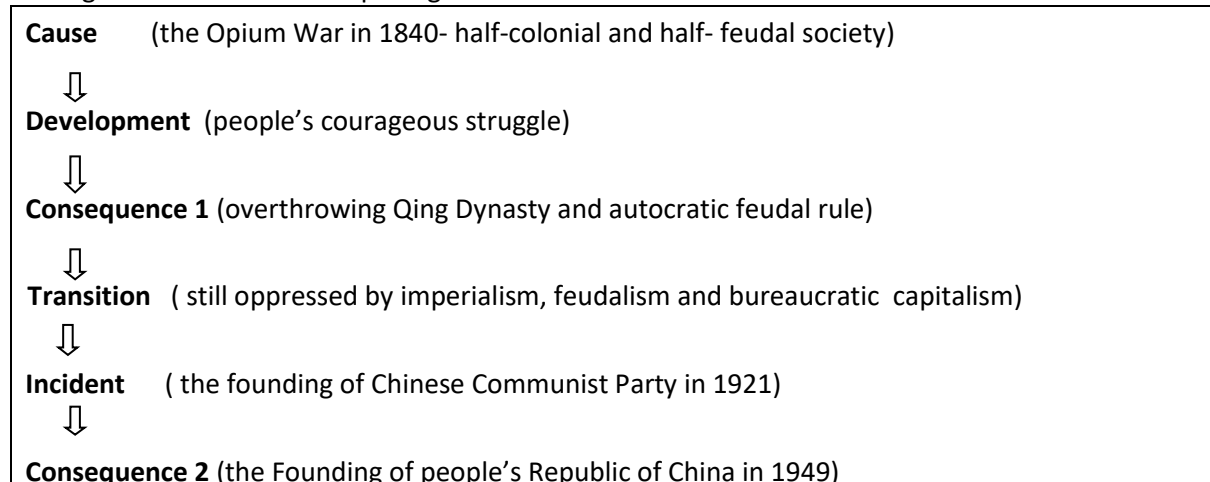
In the course of improving students' English proficiency level, teachers should help them to split their attention scientifically. According to cognitive science, there are two phases for comprehension: perception of language form and grasping the information contained. If too much effort is spent on perception of language, the quality of information receiving will be affected. Real time foreign language comprehension requires at least near-native speakers' linguistic proficiency. Interpreters can also rely on other means to promote source language comprehension.

Logical reasoning of the information

Interpreters should catch the main information and its hierarchical organization. Eg.

The history of modern China begins with the Opium War in 1840. Subsequent invasions by the imperialist powers gradually reduced China to a state of semi-colonial and semi-feudal country. The Chinese people began a long and courageous struggle against the oppression of feudalism and foreign aggression. The 1911 revolution overthrew the Qing Dynasty and ended the autocratic feudal rule, but failed to liberate China from the heavy burdens of imperialism, feudalism and bureaucratic capitalism that weighed down on the people's shoulders. The Chinese Communist Party was founded in 1921, and finally led the people to victory with the founding of People's Republic of China on Oct. 1, 1949. (Quoted from Wu: 2002.)

The logical framework of this passage can be sorted out like this:



(From Wu 2002)

The experienced interpreters always memorize meanings instead of words and phrases used by the speakers, and they analyze and reorganize information. The process of analytical reasoning is actually integrating the newly coming information with various kinds of knowledge stored in the interpreters' minds earlier. At the moment when a discourse is formed, its content should be represented by a tree diagram in the interpreters' minds or notes. Every piece of information is composed of main and subordinate ideas which are related in various ways. The organized memory of the interpreters is decided by differentiating master-subordinate relationship between pieces of information and their interior connections. To prevent information missing in target language reconstruction, logical reasoning is extremely important when information provided by the speaker outloads the interpreter's working memory.

Visualization of information

Knowledge for cognitive processing is stored in human minds in forms of language, pictures, real objects or other forms of diagrams, on which meanings of utterances depend. Visualization is an effective way towards deverbalization. Experienced interpreters often visualize information while listening, following the development of the speech with their visualization and memorize information via images. Visualization can reduce misunderstanding at the information receiving stage and ensure fluency and clarity at target language production stage.

Improving short-term memory power and enlarging its capacity

My investigation reveals my students' serious problems with memory. When their minds try to understand the 3rd sentence, the first two disappear, then a vicious circle follows: miss of information, loss of confidence, loss of concentration, failure of the task eventually.

A verbal message is transferred to our sensory registers where it remains for less than a second after being received from the outside environment. Then it is encoded either in the form of acoustic, visual, or semantic data and thereafter moves to our STM where it remains for less than thirty seconds. After this stage, the message may move to our long-term memory (LTM), on the condition that the message is coded, retrieved, or rehearsed. Otherwise, the message will be forgotten. The new information will be put into a context if the interpreters have accumulated corresponding knowledge in their long term memory, but the short term memory is of immediate assistance. Good memory depends on effective understanding.

Techniques for improvement of STM

Techniques and exercises such as retelling in source language, shadowing, mnemonic techniques, short-term memory exercises with inference, newspaper/news translation, and speech translation help enhance and optimize short-term memory.

Students are suggested to memorize phone numbers, poems, literary pieces, simple scientific formulas, etc. These techniques are helpful for keeping new information in mind. The subject of discussion and key terms can also be useful for understanding and memorizing the message; although there is time duration limitation and the encoding and decoding process takes place in a short time.

Learning note-taking skills

In consecutive interpretation, interpreters often encounter problems of forgetting or missing some information. Very clear information at the moment of decoding will soon become passive and difficult to be extracted. Proper outside stimulus will change the situation. Note-taking is a basic skill for consecutive interpretation.

The commonly used note-taking techniques include using symbols and abbreviations, double slash mark between groups of sentences, taking numbers, proper nouns, first and last sentence of the speech, space left for adding information later etc. Student interpreters should gradually develop their own individualized pattern for note-taking, and upgrade the pattern to a program system so that information can be extracted automatically for later use. The routinization of note-taking skills is realized via interpreters' actual experiences. For interpreting students, raising the awareness of note-designing, summarizing gains and losses after every practice, and rehearsing their own note-taking system in practice will guide them to the formation of note-taking procedural system.

Conclusion

Our university is a second tier local university in underdeveloped area. The students' comprehensive scores in the College Entrance Examination are just above enrollment level. The scores of English subject of many of our translation majors are even lower than other majors in our university. This is caused by the surplus of foreign language talents supply and the low employment rate. I guess most of the undergraduate translation programs in local universities in other provinces of China face the similar difficulties as well. The questionnaire results present us the students' inadequate command of English and the lack of comprehensive cognitive knowledge. The challenges ahead of university interpreter trainers is to reform our traditional ways of teaching, integrating English language teaching into interpreting skill training, and even guide and supervise students' extra-curricular studies. My students told that some of them chose this program with the intention of improving their English proficiency level. We do find students have made some progress in English after translating and interpreting training, esp. their listening comprehension ability, which assures us that interpreting skill training can be combined with English language teaching. The source English texts/recordings should be carefully chosen, and scaffolding instruction should be adopted in interpreting skill training. I compared the courses offered in our department to English majors and translation majors during semesters 1-4, and found they were nearly the same. This may be the cause for so many barriers in their listening and information receiving for interpretation. A future interpreter is supposed to speak a foreign language not only on the verbal level, but also on the level of meaning. Therefore, it is necessary to focus language training for the trainee interpreters on the intellectual development and formation of their professional thinking. In the future, their basic language education should be reoriented for the formation of professional identity of their future work, and thus, more thoroughly prepare trainee interpreters for mastering interpretation skills.

About the Author

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Appendix

The questionnaire

This questionnaire aims at finding out the barriers in your studies. Please answer according to your actual situation. You do not have to write down your names on it.

1. It is difficult for me to get the meaning of some words when listening to the recording even when I am very familiar with them in reading.
a. very often b. often c. sometimes d. seldom
2. I'm likely to get lost while listening to the material.
a. very often b. often c. sometimes d. seldom
3. I cannot tell the differences between the argumentative ideas and supporting details in the listening material.
a. very often b. often c. sometimes d. seldom
4. I feel difficult to recognize some words even if I know them in the reading materials.
a. very often b. often c. sometimes d. seldom
5. I could not divide the complete utterance into identifiable units.
a. very often b. often c. sometimes d. seldom
6. I misunderstand words with similar pronunciation in the listening material.
a. very often b. often c. sometimes d. seldom
7. I am often stuck for the meaning of some strange words in the recording, such as some technical terms and phrases, slangs, idioms in particular.
a. very often b. often c. sometimes d. seldom
8. Although I know most of the content in the material, I still can't understand the general ideas of the passage.
a. very often b. often c. sometimes d. seldom
9. When I try to work out the meaning of the current sentence, the next sentence in the recording has slipped away already.
a. very often b. often c. sometimes d. seldom
10. I can understand the general idea of the listening material, but I cannot do the retelling or interpreting work.
a. very often b. often c. sometimes d. seldom
11. When I try to understand the current sentence, the previous ones of the speaker (or in the recording) have already run out of my memory.
a. very often b. often c. sometimes d. seldom
12. Although I spend a lot of time and pay much attention to listening comprehension practice, it seems that no progress has been made.
a. very often b. often c. sometimes d. seldom
13. I cannot recognize the same passage when it is recorded by a speaker with strong accent.
a. very often b. often c. sometimes d. seldom
14. I am often easily disturbed by the surroundings.
a. very often b. often c. sometimes d. seldom

(revised from Guo, X. 2013)